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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,794	10/17/2003	James R. Jenkins	STL11063	9881
7590	09/20/2005		EXAMINER ADAMS, GREGORY W	
Seagate Technology LLC Intellectual Property - OKM178 10321 West Reno Oklahoma City, OK 73127-7140			ART UNIT 3652	PAPER NUMBER

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,794

Applicant(s)

JENKINS ET AL.

Examiner

Gregory W. Adams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/17/2003</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: lines 5 & 6 should be changed from "said conveyor" to --said in-feed conveyor--. Appropriate correction is required. Line 12 should be changed from "thereby presenting the disc" to --thereby presenting the disc caddy". See also claim 19, line 8 and claim 21, lines 2-3.

Claim 1 is objected to because of the following informalities: line 4 should be changed from "the caddy elevator" to --the feed elevator--.

Claim 12 is objected to because of the following informalities: line 4 should be changed from "the gripper slide" to --gripper slide assembly--. See also claim 15, line 7.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 8-10, 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Pederson et al. (US 6,471,460).

With respect to claim 1, Pederson et al. disclose a disc presentation apparatus 10, 160, 220 comprising a frame 10, 160, 220 supporting an in-feed conveyor 20, 80,

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160, 250 advancing a disc caddy cassette, caddy escapement 660 comprising an active clamp bar 650, 270 and a mechanism securing a disk caddy from a conveyor 270, a caddy feed 225 comprising a feed elevator 225 and a caddy gripper 630 to secure and align a cassette and attached to a feed elevator 225.

With respect to claim 2, Pederson et al. disclose a frame further supports an alignment assembly 225, 230, 240, 250 comprising a main mount 310 with a first main shaft aperture 290, compression spring 710, 800 with a second main shaft aperture col. 9, ln. 34 (or 810, 840), feed mount plate 290 with an attached main shaft support, main shaft (col. 9, ln. 35 (or 720, 850, 860)), adjustment nut and a shaft support 730, 740 (or 810) first lateral direction. It is noted that Pederson et al. '460 disclose lateral direction for either a disc caddy or a group of disc caddys.

With respect to claim 3, Pederson et al. disclose an alignment assembly 225, 230, 240, 250, stabilizer bar 270, 280, adjuster block 270, slide assembly 330, feeder mount table 680, table lock 705 second lateral direction.

With respect to claim 8, Pederson et al. disclose a caddy gripper of caddy feed (160) 630 of caddy feed 225, slide mount 750, 760, gripper slide assembly 675, 665, gripper plate 620, 610, active jaw assembly 650, caddy locating assembly 650 supported by a gripper plate 620, 610.

With respect to claim 9, Pederson et al. disclose a gripper slide assembly 675, 665 of caddy feed caddy gripper 630, arm pivot block 750, pivot cylinder 740, pivot pin 740 and gripper slide 770.

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With respect to claim 10, Pederson et al. disclose an active jaw assembly 650 comprising a first jaw portion 650, jaw slide 760, and second jaw portion 650. It is noted that first and second jaw portions 650 slide rotationally.

With respect to claim 21, Pederson et al. disclose an apparatus 10, 160, 220 comprising a disc, disc caddy, caddy vacuum attachment 270 and means for presenting the disc 630.

With respect to claim 22, Pederson et al. disclose means for presenting the disc 225, feed elevator 225, caddy gripper 630, slide mount 750, 760, gripper slide assembly 675, 665, gripper plate 620, 610, active jaw assembly 650 and caddy locating assembly 650.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 14-17 & 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kang (US 6,142,723).

With respect to claim 14, Kang discloses a disc caddy 14, gripper slide assembly 360, gripper plate 320, 344, 360, active jaw assembly 360 and caddy locating assembly 330, 364, 362.

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With respect to claim 15, Kang discloses a gripper slide assembly 360, arm pivot block end of arm 330, pivot cylinder the hole therethrough, pivot pin 350 and gripper slide 360.

With respect to claim 16, Kang discloses an active jaw assembly 360, first jaw portion 344, 360, jaw slide 344, 360 and second jaw portion 344, 360.

With respect to claim 17, Kang discloses a caddy locating assembly 330, 364, 362, datum slide 390, 393, datum actuator plate 391, activation linkage 393 datum bar 390, 393, datum cylinder (col. 7, Ins. 65-67) and optical sensor 394a-e (col. 8, Ins. 7-10).

With respect to claim 19, Kang discloses positioning a disc caddy, securing the disc caddy, transferring the disc caddy, extracting the disc caddy and indexing the disc transferring the disc caddy. Col. 8, ln. 62 - col. 9, ln. 20.

With respect to claim 20, Kang discloses means for gripping a disc caddy 370, slide mount 325, 357, gripper slide assembly 360, gripper plate 320, 344, 360, active jaw assembly 360, caddy locating assembly 330, 364, 362, datum slide 390, 393, datum actuator plate 391, activation linkage 393, datum bar 390, 393, datum cylinder (col. 7, Ins. 65-67) and optical sensor 394a-e (col. 8, Ins. 7-10).

With respect to claim 21, Kang discloses an apparatus 100 comprising a disc caddy 14, caddy vacuum attachment 290 and means for presenting the disc 370.

With respect to claim 22, Kang discloses means for presenting the disc 300, feed elevator 300, caddy gripper 370, slide mount 325, 357, gripper slide assembly 360,

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gripper plate 320, 344, 360, active jaw assembly 360 and caddy locating assembly 330, 364, 362.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Pederson et al. (US 6,471,460) in view of McGowan (US 2003/0082032). With respect to claim 4, Pederson et al. disclose a caddy escapement 660, escapement mount plate 630, 660 which a caddy present sensor 780, 790, pneumatic slide assembly positions clamp bar to confine the disc caddy 600, and does not disclose a barcode reader. McGowan discloses a barcode reading system to avoid a cross contamination of wafers being transferred between and among multiple processing stations and disc caddys. Col. 3. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Pederson et al. to include a barcode reader system, as per the teachings of McGowan, for disc caddy and subsequently disc management.

Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Pederson et al. (US 6,471,460) in view of Imamura et al. (US 4,803,373). With respect to claim 5, Pederson et al. discloses a caddy escapement mechanism securing a disk caddy from

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a conveyor 270, caddy vacuum attachment 270, guided cylinder 600, escapement mount plate 630, 660, caddy present sensor 780, 790, caddy vacuum-grasp mounting plate 665, 675 and vacuum-grasp support plate 680, and does not disclose disc retention mechanism to keep the discs in the cassette, vacuum-grasp assembly, and does not disclose a disc scanner. Imamura et al. disclose a disc scanner 15 to coordinate the position of a disc relative to other discs within a disc caddy 2 in the event a disc is warped and to prevent a disc retrieval arm from contact other discs. Col. 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Pederson et al. to include a disc scanner, as per the teachings of Imamura et al., to prevent a disc retrieval arm from contacting other discs.

Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Pederson et al. (US 6,471,460) in view of Imamura et al. (US 4,803,373) and Howells et al. (US 6,152,680). Pederson et al. does not disclose a disc retention mechanism. Howells et al. disclose a disc retention mechanism 20, disc retainer side mount 39, disc retainer slide 12, disc retention bar mount 29, 35, disc retention bar 20 such that during disc caddy 16 rotation discs are within. Col. 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Pederson et al. to include a disc retention mechanism, as per the teachings of Howells et al., such that discs are retained during rotation.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pederson et al. (US 6,471,460) in view of Imamura et al. (US 4,803,373) and Davis et al. (US

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2002/0164232). With respect to claim 8, Pederson et al. do not disclose a vacuum-grasp assembly. Davis et al. disclose a vacuum-grasp assembly 180 comprising a slide rail, vacuum cup mount plate 184 (Para. [0054]), vacuum cup 188, caddy bottom support, wherein vacuum cups attach to a caddy door, i.e. a side. Davis et al. teach a vacuum-grasp assembly reduces contamination. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Pederson et al. to include a vacuum grasp assembly, as per the teachings of Davis et al., to reduce contamination.

Claims 11 & 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pederson et al. (US 6,471,460) in view of Kang (US 6,142,723). With respect to claims 11 & 13, Pederson et al. do not disclose a datum slide, actuator, linkage, bar, cylinder or optical sensor and out-feed conveyor. Kang discloses an out-feed conveyor to emptied disc caddys and a caddy locating assembly which aligns a cassette 330, 364, 362 of caddy feed and caddy gripper, datum slide 390, 393, actuator plate 391, activation linkage 393, bar 390, 393, cylinder (col. 7, Ins. 65-67), optical sensor 394a-e, (col. 8, Ins. 7-10) to determine a position of datum bar 391, 393. Kang teaches automating a caddy load/unload system to locate a caddy during an elevation process such that a load/unload position of discs into or out of a caddy is acquired. Col. 6, Ins. 15-60. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Pederson et al. to include a locating assembly and out-feed conveyor, as per the teachings of Kang, to locate a caddy during caddy position during caddy elevation for unloading.

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Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Pederson et al. (US 6,471,460) in view of Howells et al. (US 6,152,680). With respect to claim 12, Pederson et al. does not disclose an over-travel vane, sensor mount, slide or sensor. Howells et al. disclose a caddy gripper 20, over-travel vane 30, 124, sensor mount 126, over-travel slide 72 (or 92, 82) and over-travel sensor 120, 122 to indicate when a rotating disc caddy is in position or whether a disc caddy has over rotated. Col. 8, Ins. 5-33. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Pederson et al. to include an over-travel vane, sensor mount, slide and sensor, as per the teachings of Howells et al., to indicate a disc caddy positioning during rotation.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kang (US 6,142,723) in view of Howells et al. (US 6,152,680). Kang does not disclose an over-travel vane, sensor mount, slide, and sensor. Howells et al. disclose an over-travel vane 30, 124, sensor mount 126, over-travel slide 72 (or 92, 82) and over-travel sensor 120, 122 to indicate when a rotating disc caddy is in position or whether a disc caddy has over rotated. Col. 8, Ins. 5-33. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Pederson et al. to include an over-travel vane, sensor mount, slide and sensor, as per the teachings of Howells et al., to indicate a disc caddy positioning during rotation.

Conclusion


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th, 8:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GWA


JAMES W. KEENAN
PRIMARY EXAMINER